REMARKS

This present Amendment is in response to the Office Action dated March 9, 2007.

Applicants respectfully request reconsideration and allowance of pending claims in view of the above-amendments and the following remarks.

I.   DRAWINGS

The drawings were objected to for several informalities. Where necessary, Replacement Sheets are enclosed to correct the informalities.

FIG. 1 is amended as suggested in the Office Action to underline reference numeral 131. However, reference numeral 134 was already underlined. However, reference numeral 134 has been moved so that the underlining can be seen more clearly.

In addition, FIG. 1 was amended to add an arrow to reference numeral 100.

With respect to FIGS. 2 and 3, in particular reference numerals 210 and 330, FIG. 2 shows a particular example of digital image data 210, which contains three objects. In FIG. 3, digital image data 330 does not necessarily include the same digital image data shown in FIG. 2 (e.g., 210). Therefore, a new reference numeral was used. It is believed that the explanation on page 22, lines 29-30 ("An image 330 (such as image data 210 shown in FIG. 2)") provides a sufficient connection between reference numerals 210 and 330 such that the drawings and the specification are sufficiently clear. Therefore, no change has been made in this respect.

FIG. 6 is amended to extend the reference numeral 604 to the (i,j) axis as suggested in the Office Action.

In addition, FIG. 6 and 7 are amended to include "THETA" and "-THETA", as suggested in the Office Action.

FIG. 17 is amended to make all lines black and to fill in all arrows, as suggested in the Office Action.

II.   SPECIFICATION

The Abstract of the disclosure was objected to since the Abstract included the title. Accordingly, a new, amended Abstract is submitted herewith and the title has been deleted.

The specification was further objected to for minor informalities on pages 22, 27 and 31. These pages of the specification have been amended as suggested in the Office Action.

With respect to page 27, lines 21-22, this sentence has been amended to refer to the particular sub-image being processed in the current loop of boxes 501-506, as referred to on page 27, lines 19-20.

In addition, the specification has been amended to correct various typographical errors.

III.   CLAIM OBJECTIONS

Claims 39 and 42 were objected to because of minor informalities related to the dependencies of these claims. With this Amendment, claims 39 and 42 (as well as claim 38) are amended to correct the claim dependencies are therefore provide proper antecedent basis for all terms appearing in those claims.

IV.   CLAIM REJECTIONS UNDER §101

Claims 17-29 were rejected under 35 U.S.C. §101 as being allegedly directed to non-statutory subject matter. The Office Action suggested that a "signal" does not fall within the statutory classes of §101. Applicants respectfully disagree, but are aware of the current USPTO position on so-called "signal claims".

Accordingly, claim 17 is amended as suggested in the Office Action to include disclosed tangible computer readable media, while at the same time excluding intangible media such as signals and carrier waves. Specifically, claim 17 is amended to include "computer storage media", which is described in the specification in terms of tangible media.

Accordingly, Applicants respectfully request that the rejection of claims 17-29 under §101 be withdrawn.

V.   <u>CLAIM REJECTIONS UNDER §103(a) BASED ON NEWSOFT AND ZHOU</u>

  Claims 1-5, 7-21, 22-23 and 35-41 were rejected under §103(a) as being allegedly unpatentable over a combination of NewSoft and Zhou.

  Independent claim 1 (and similarly independent claim 17 and 30) was amended to recite,

> (c) displaying <u>simultaneously to a user</u> fields of the electronic form <u>in a form data area</u> and the identified <u>text blocks in an object data area that is outside of the form data area, which corresponds to the first object,</u> through a graphical user interface<u>, wherein the text blocks are selectable by the user within the object data area through the graphical user interface for insertion into respective fields of the electronic form</u>;

  Neither reference discloses or suggests displaying simultaneously to a user fields of an electronic form in a form data area and identified text block in an object data area that is outside the form data area and corresponds to a first object.

  Further, neither cited references discloses or suggests text blocks that are selectable by the user within the object data area through the graphical interface for insertion into respective fields of the electronic form.

  A. **Newsoft**

  NewSoft discloses a business card scanner, which allows a user to automatically build and maintain a database of business contacts.

  NewSoft does not disclose a device that is capable of simultaneously displaying to a user fields of an electronic form in <u>a form data area</u> and identified text blocks <u>in an object data area that is outside of the form data area</u> and corresponds to a first object.

  The Office Action directs Applicants' attention to the "Card Deck Mode" on page 10 and alleges that this mode "displays the identified text blocks (right side column) to the user through the graphical user interface simultaneously with the field of the electronic form (fields are listed at the top of the right side column as disclosed, some of which consist [of] Name, Company, etc…)."

However, the right side columns in the Card Deck Mode are simply part of the form itself, not a separate object data area as defined in claim 1. The "Card List" lists populated fields of a number of electronic business card forms that have already been completed.

More specifically, the Card Deck Mode does not display text blocks within an object data area that are selectable by the user through a graphical user interface for insertion into respective fields of an electronic form that is displayed in a form data area.

Looking at the Card Deck Mode on page 10 of NewSoft, the right side column cannot be selected for insertion into respective fields of the cards shown on the left side of the display or vice versa. The left side simply displays an image of the scanned business card and the corresponding electronic business card.

The Card Deck Mode therefore does not display a form data area and a separate object data area that is outside of the form data area, as the object data area is defined in claim 1.

Similarly, page 11 illustrates a Card Editor Mode, which displays an image of the business card currently being edited on the right pane of the work space, while the left pane of the work space displays the fields of the corresponding electronic business card. Again, the Card Editor Mode does not display identified text blocks in an object data area that is outside of a form data area, wherein the text blocks are selectable by the user within the object data area through the graphical data interface for insertion into respective fields of the electronic form.

Rather, the Card Editor Mode simply displays what appears to be a bit map image of the scanned business cards.

B.   **Zhou**

Zhou discloses a method for detecting multiple image areas in a digital image.

The Office Action suggests that it would have been obvious to one of ordinary skill in the art to disclose identifying a size, orientation and position of a first object having any arbitrary orientation within the electronic images as taught by Zhou.

However, Zhou merely receives a digital image containing one or more image areas and operates to automatically detect image area rectangles for each image area. In each

instance, the extracted images are treated simply as images, not objects from which information is identified and used to fill electronic forms.

Zhou does not disclose identifying text blocks within a first object using optical character recognition, as recited in claim 1. Also, Zhou does not disclose simultaneously displaying to a user fields of an electronic form in a form data area and identified text blocks in an object data area, which is outside the form data area and which corresponds to the first object.

Further, Zhou does not disclose that such text blocks could be selectable by the user within the object data area through a graphical user interface for insertion into respective fields of electronic forms.

Zhou also does not disclose the steps of parsing and populating as recited in claim 1.

Accordingly, even if the business card scanner of NewSoft were modified according to Zhou, the resulting combination would still fail to disclose or suggest the simultaneous display of a form data area and an object data area as recited in claim 1 or text blocks that are selectable by the user within the object data area for insertion into respective fields of the electronic form in the form data area.

Independent claim 1 and similarly independent claims 17 and 30 are non-obvious in view of these references.

Applicants respectfully request that the claim rejection of independent claims 1, 17 and 30 and their respective dependent claims under §103(a) based on NewSoft and Zhou be withdrawn.

C.   Dependent Claims

In addition, various dependent claims add further features that are not obvious in view of NewSoft and Zhou.

For example, regarding claim 8, the Office Action incorrectly suggests the NewSoft discloses highlighting tagged groups of different information types within the image of a first object with visual indicators that indicate the different information types. The Office Action refers Applicants' attention to the "Edit Template Dialog Box" on page 41 of NewSoft.

The Office Action suggests that "each tagged group of different information types (name, type, company, etc) is highlighted so that when the respective business card is displayed (image of the first object), each scanned and recognized tagged group would be put into that particular template format."

However, the Office Action has incorrectly associated the tagged group of information data types with the titles of the form itself as opposed to the information elements of the object being identified. Claim 1 includes the steps of identifying information elements from pixels within the electronic image that correspond to the first object and parsing the information elements into tagged groups of different information types. Thus, the tagged groups of information types comprise the information elements. Claim 8 highlights the tagged groups of information types with visual indicators. Thus, it is the information elements within the tagged groups that are highlighted.

Further, claim 8 is amended to clarify that the tagged groups are highlighted in the object data area. NewSoft does not disclose highlighting such tagged groups of different information types within an object data area, as defined in claim 1. Similar arguments can be made with respect to dependent claim 23 and 35.

D.   **Dependent Claim 9**

Dependent claim 9 includes the step of displaying the information elements through an object data graphical user interface and includes the step of displaying the populated fields and any unpopulated fields through a form graphical user interface. Again, neither NewSoft nor Zhou teaches or suggests these two separate interfaces, wherein the displays are simultaneous as recited in claim 1.

Similar arguments can be made with respect to dependent claims 24 and 36.

E.   **Dependent Claims 10-14**

The elements of dependent claims 10-14 are also believed to be not disclosed by the cited references.

F.   **Dependent Claim 16**

Dependent claim 16, as it depends from claim 15, requires that the plurality of objects comprises objects of different types and that steps (a) – (e) be preformed for each object, wherein the fields of a corresponding electronic form are at least partially populated with information obtained from pixels within that object.

The specification gives an example of objects that are of different types. Business cards and receipts are objects of different types, wherein these objects can be scanned at the same time and then used to fill corresponding electronic forms.

The Office Action inaccurately states that NewSoft discloses objects of different types, wherein each business card is unique and any two business cards are of "different types".

In contrast, two business cards are of the <u>same</u> type-- they are both business cards. As such, the business card scanner assumes each card will contain certain information corresponding to that type, such as name and address, and have a certain size and general layout.

NewSoft provides no capability for operating on objects of types other than a business card. Therefore, claim 16 is believed to be new and non-obvious in view of NewSoft and Zhou.

Other dependent claims also include elements that are neither taught nor suggested by the cited references, particularly within the context of their corresponding independent claims.

G.   Independent Claim 41

Independent claim 41 is directed to method of populating electronic forms from an electronic imaging having first and second objects of <u>different information types</u>.

The method identifies a size, orientation and position of the first and second objects and divides the electronic image into sub-images corresponding to each object. Optical character recognition is performed on each sub-image to identify untagged information elements within the corresponding object and, for each sub-image, the untagged information elements are parsed into tagged information elements. Fields of a <u>first electronic form type</u> are populated with tagged information elements identified from the sub-image <u>of the first object</u> (of one information type) to produce a first populated form. Fields of a <u>second electronic form type</u> are populated

with tagged information elements identified from the sub-image <u>of the second object</u> (of a <u>different information type</u>) to produce a second populated form.

As discussed above, two different business cards do not constitute first and second objects of different information types. Further, the electronic form types are the <u>same</u>. They are both business cards-types forms.

With respect to claim 41, the Office Action directs Applicants' attention to the "Card Deck Mode" on page 10 of NewSoft and the "Card List Mode" on page 12 of NewSoft and suggests that these two modes correspond to populating fields in first and second electronic form types. However, the "Card Deck Mode" and the "Card List Mode" correspond to different display options of the <u>same business cards</u>. Each display illustrates <u>the same identical information</u>. Further, they correspond to <u>objects of the same information type</u> (i.e. business card type).

Accordingly, independent claim 41 is new and non-obvious in view of NewSoft and Zhou.

VI.   <u>CLAIM REJECTIONS UNDER §103(a) BASED ON NEWSOFT AND ZHOU AND FURTHER IN VIEW OF HUAUG</u>

Claims 6, 22 and 34 were rejected under §103(a) as being allegedly unpatentable over the combination of NewSoft, Zhou and further in view of Huaug.

Claims 6, 23 and 34 depend from respective independent claims, which are new and non-obvious in view of the recited references discussed above. Accordingly, these claims are also new and non-obvious.

VII.   <u>CLAIM REJECTIONS UNDER §103(a) BASED ON NEWSOFT AND ZHOU AND FURTHER IN VIEW OF PANDIPATI</u>

Claim 42 was rejected under §103(a) as being allegedly unpatentable over the combination of NewSoft, Zhou and further in view of Pandipati.

Claim 42 depends from claim 41 and further defines that the first object comprises a business card and the second object comprises a purchase receipt. The first electronic form comprises a contact record of a software address book and the second electronic form comprises

an electronic financial record of a software financial application.

The Office Actions suggests that it would have been obvious to a person of ordinary skill in the art to disclose a bill scanner and financial organizer as taught by Pandipati.

However, claim 42 is recited in the context of claim 41 in which a single electronic image includes first and second objects with different information types. Pandipati simply disclose a bill scanning system (i.e., system that scan a single type of image).

Neither Pandipati, NewSoft nor Zhou disclose how two separate objects within the same electronic image and having different information types can be identified such that respective information elements can be identified within each corresponding object and used to populate respective forms of different form types.

These elements are certainly not disclosed by any of the cited references, either separately or in combination, and these elements would be non-obvious to a person of ordinary skill in the art when looking at these references.

Applicants respectfully request that the various claim rejections under §103(a) be withdrawn in view of the above-amendments and remarks.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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